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U.S. EPA RECORD OF DECISION
FOR APPROVAL OF WATER QUALITY STANDARDS
UNDER § 303 OF THE CLEAN WATER ACT

Federally Recognized Tribe:	*Fond du Lac Band of the Minnesota Chippewa Tribe*
Location:	*State of Minnesota, Great Lakes Basin and Upper Mississippi Basin*
Applicable Regulations:	*40 C.F.R Parts 131 and 132*
Document Title:	*Fond du Lac Band of Lake Superior Chippewa Water Quality Standards of the Fond du Lac Reservation, Ordinance #12/98, Revision #1, June 1, 2001*

I. 40 C.F.R. § 132.3(a): Acute numeric criteria for the protection of aquatic life - Tribe citation: *Appendix 1.*

A. Section 132.3(a) required acute aquatic life criteria that are not pH or hardness dependent:

Chemical	Part 132 Criteria (µg/l)	Tribe's Criteria
Arsenic (III)	339.8	340
Chromium (VI)	16.02	16
Cyanide	22	22
Dieldrin	0.24	240,000 pg/l (0.24 µg/l)
Endrin	0.086	0.086
Lindane	0.95	0.95
Mercury (II)	1.694	1.7
Parathion	0.065	0.065
Selenium	19.34 (vacated)	20

Issues within section I A: The selenium value from Part 132 should have been 19.34 µg/l, however it has since been vacated by the courts.

There are five extra acute criteria listed and they are (in µg/l): 423 for chlorobenzene, 137 for 2,4-dimethylphenol, 379 for 2,4-dinitrophenol, 1,352 for toluene, and 9,600 for methylene chloride.

In appendix 2(d), the Tribe lists conversion factors for transforming total recoverable metals to dissolved concentrations. The Part 132 conversion factor for the cadmium criteria (both acute and chronic) is 0.85. The Tribe lists a conversion factor for the acute cadmium criterion of 0.944 which is a value calculated using an equation from the national water quality criteria table at a sample hardness of 100 mg/L. The national equation used by the Tribe results in less stringent dissolved cadmium concentrations, for any hardness value under about 900 mg/L, than what the Part 132 conversion factor

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would yield. The Tribe did not provide a rationale for using the national cadmium conversion equation rather than the required Part 132 cadmium conversion factor. The Tribe also lists acute criteria conversion factors for lead and silver, but does not have any acute lead or silver criteria to multiply with the conversion factors.

Response from the Tribe: The selenium value of 20 was adopted from the State of Minnesota's (MN) approved water quality standards.

The five extra acute criteria came directly from MN Rules, Chapters 7050 (waters of the State) and 7052 (Lake Superior basin waters) - which conforms with Part 132.

Fond du Lac will remove lead, silver and cadmium conversion factors from the standards. Cadmium will be expressed as total recoverable.

EPA Determination: The selenium value of 20 that the Tribe indicates came from the State of MN standards is probably based on the older national selenium criterion rather than Part 132. The older national value often used by States was 19.98 - which was usually rounded up to 20. The Part 132 acute criterion for selenium was vacated by the courts on 9/19/96, and the selenium equation proposed by EPA on 11/14/96 was also withdrawn in June of 2000 because the EPA workgroup has not yet thoroughly evaluated it. Therefore, the Tribe's criterion is approved. EPA will reconsider changes when a new criterion is prepared.

Regarding the five extra acute criteria, according to 40 C.F.R. § 132.5(g)(2) the Tribe should have demonstrated that for all other pollutants not listed in tables 1, 2, 3, 4, 5 of Part 132 that those adopted numeric criteria were derived, or are as protective as or more protective than could be derived, using the methodologies in appendices A, B, C, D of Part 132. EPA notes that these criteria are identical to the criteria adopted by the State of MN for these parameters. EPA recently completed a thorough review of the State of MN standards and determined that these criteria were derived consistent with Part 132 methodologies. EPA has thus also determined that Fond du Lac's criteria are consistent with 40 C.F.R. Part 132. Please note that the criteria may need to be recalculated if new toxicity information becomes available which would warrant revisions consistent with 40 C.F.R. Part 132.

All other criteria are as protective as Part 132 requirements for the Great Lakes basin.

B. Section 132.3(a) required acute aquatic life criteria that are hardness or pH dependent. Tribe citation: *Appendix 2.*

Chemical	Part 132-m_a	Part 132-b_a	Tribe's m_a	Tribe's b_a
Cd	1.128	-3.6867	1.128	-3.6867
Cr(III)	0.819	3.7256	0.819	3.7256

Cu	0.9422	-1.700	0.9422	-1.700
Ni	0.846	2.255	0.846	2.255
PCphenol	1.005	-4.869	1.005	-4.869
PCphenol			1.005	-4.830 (second equation)
Zn	0.8473	0.884	0.8473	0.884

Issues within section I B: Equation components are identical to Part 132 - except for the second acute pentachlorophenol equation that is included in the Tribe's Appendix 2(c). Use of the second equation results in less protective criteria than what the Part 132 equation would yield. No justification was provided for having a lower level of protection than that specified within Part 132, and no information was provided on how the second equation was derived. EPA checked MN standards to see what equations were used to calculate the pentachlorophenol criteria, and the State of MN also uses two pentachlorophenol equations - one for Lake Superior, and one for other class 2 waters within the Lake Superior Basin. Both of the State's equations are identical to Part 132 requirements. Also, EPA checked the Tribe's calculated criteria by using several sample pH values within the questionable second equation. The correctly calculated criteria are different from the Tribe's calculated criteria examples. EPA suggested the Tribe delete the second pentachlorophenol equation, or provide justification and supporting documentation for keeping it within the standards.

Response from the Tribe: In the revised set of standards, Fond du Lac has deleted the second equation for pentachlorophenol and will only use the first equation to remain consistent with Part 132.

EPA Determination: After the Tribe deleted the less protective pentachlorophenol equation, all equation components within this section are consistent with Part 132.

II. 40 C.F.R. § 132.3(b): Chronic numeric criteria for protection of aquatic life - Tribe citation: *Appendix 1.*

A. Section 132.3(b) chronic aquatic life criteria that are not pH or hardness dependent, (in µg/l):

Chemical	**Part 132 Criteria**	**Tribe's Criteria**
Arsenic (III)	147.9	148
Chromium (VI)	10.98	11
Cyanide	5.2	5.2
Dieldrin	0.056	56,000 pg/l (0.056 µg/l)
Endrin	0.036	0.036
Mercury(II)	0.9081	0.91
Parathion	0.013	0.013
Selenium	5.0	5.0

Issues within section II A: Five extra chronic criteria are listed and they are (in µg/l): 10 for chlorobenzene, 21 for 2,4-dimethylphenol, 71 for 2,4-dinitrophenol, 253 for toluene, and 1,561 for methylene chloride.

In Appendix 2(d), the Tribe lists conversion factors for transforming total recoverable metals to dissolved concentrations. The Part 132 conversion factors for acute and chronic cadmium criteria is 0.85. The Tribe lists a conversion factor of 0.909 for the chronic cadmium criterion which is a value calculated using an equation from the national water quality criteria table at a sample hardness of 100 mg/L. The national equation used by the Tribe results in less protective dissolved cadmium concentrations, for hardness values under about 300 mg/L, than what would be calculated using the Part 132 conversion factor. The conversion factor for the mercury chronic criteria is listed as N/A. However the Tribe supplies a conversion factor for the mercury acute criteria. No justification was provided for omitting the Part 132 conversion factor for the mercury chronic criteria. Lastly, conversion factors for chronic lead and silver criteria are listed, but there are no chronic lead or silver criteria within the standards to multiply with the conversion factors.

Response from the Tribe: Fond du Lac adopted all five extra values from the MN standards, Chapter 7052 (Lake Superior basin waters), which conforms with Part 132.

Fond du Lac will remove lead and silver conversion factors from the standards; remove the conversion factor for the cadmium chronic criterion and express cadmium as total recoverable; and add the conversion factor of 0.85 for the mercury chronic criteria.

EPA Determination: Regarding the five extra chronic criteria, according to 40 C.F.R. § 132.5(g)(2) the Tribe should have demonstrated that for all other pollutants not listed in tables 1, 2, 3, 4, 5 of Part 132 that those adopted numeric criteria were derived, or are as protective as or more protective than could be derived, using the methodologies in appendices A, B, C, D of Part 132. EPA notes that these criteria are identical to the criteria adopted by the State of MN for these parameters. EPA recently completed a thorough review of the State of MN standards and determined that these criteria were derived consistent with Part 132 methodologies. EPA has thus also determined that Fond du Lac's criteria are consistent with 40 C.F.R. Part 132. Please note that the criteria may need to be recalculated if new toxicity information becomes available which would warrant revisions consistent with 40 C.F.R. Part 132. All other criteria and equations are as protective as Part 132.

The Tribe's revised set of water quality standards indicates the conversion factor issues have all been resolved.

B. Section 132.3(b) required chronic aquatic life criteria that are hardness or pH dependent. Tribe citation: *Appendix 2.*

Chemical	Part 132 - m_c	Part 132-b_c	Tribe's m_c	Tribe's b_c
Cadmium	0.7852	-2.715	0.7852	-2.715
Chromium (III)	0.819	+0.6848	0.819	0.6848
Copper	0.8545	-1.702	0.8545	-1.702
Nickel	0.846	+0.0584	0.846	0.0584
Zinc	0.8473	+0.884	0.8473	0.884
Pentachlorophenol	1.005	-5.134	1.005	-5.134

Issues within section II B: The Tribe does not have a pentachlorophenol equation referenced for chronic aquatic life criteria to protect the designated use C1 (aquatic life - cold water fisheries). In the Tribe's Appendix 2(b), they do include an acute aquatic life equation from MN standards that, for the State of MN, is applicable to Lake Superior, however the Tribe applies the formula to the designated use C2 (aquatic life - warm water fisheries).

Response from the Tribe: The Pentachlorophenol equation in appendix 2(b) was meant to cover designated uses A and C1; however Fond du Lac's standards included a typographical error that referred to C2 (aquatic life - warm water fisheries). Fond du Lac will revise the standards to ensure that the C1, C2 and C3 aquatic life uses are covered by both an acute and chronic pentachlorophenol equation consistent with Part 132 requirements.

EPA Determination: Fond du Lac's revised set of water quality standards indicates all concerns have been adequately addressed.

III. 40 C.F.R. § 132.3(c): Human health numeric criteria

A. Section 132.3(c) human health criteria, non-cancer values (µg/L):

Chemical	DW	NDW	Tribal- DW	Tribal -NDW
Benzene	19	510	11	No value
Chlordane	0.0014	0.0014	113 pg/l (0.000113 µg/l)	No value
Chlorobenzene	470	3,200	400	No value
Cyanides	600	48,000	587	No value
DDT	0.002	0.002	71 pg/l (0.000071 µg/l)	No value
Dieldrin	0.00041	0.00041	3.3 pg/l (0.0000033 µg/l)	No value
2,4-Dimethylphenol	450	8,700	417	No value
2,4-Dinitrophenol	55	2,800	54	No value
Hexachlorobenzene	0.046	0.046	209 pg/l (0.000209 µg/l)	No value
Hexachloroethane	6.0	7.6	2.8	No value
Lindane	0.47	0.50	0.22	No value
Mercury	0.0018	0.0018	0.00077	No value
Methylene chloride	1,600	90,000	46	No value
PCBs (class)	--------	-------	13 pg/l (0.000013 µg/l)	---------
2,3,7,8-TCDD	0.000000067	0.000000067	0.0040 pg/l (.000000004 µg/l)	No value

Toluene	5,600	51,000	4,942	No value
Toxaphene	-------	-------	31 pg/l (0.000031 µg/l)	--------
Trichloroethylene	-------	-------	27	--------

Issues within section III A: No Tribal criteria are listed for the non-cancer, non-drinking water Part 132 criteria requirements. These criteria must be adopted for all other uses besides the public water supply use.

The Tribe also modified several of EPA's human health criteria, but did not notify other Great Lakes States/Tribes as specified in 40 C.F.R. Part 132, Appendix F, Procedure 1, 4(B). EPA requested that the Tribe meet the notification requirement by either sending out letters detailing the calculations, or by contacting the Region 5 Clearinghouse Manager to perform the notification duties.

The Tribe also listed extra criteria, which are not requested by Part 132 for the following chemicals: A PCB value of 13 pg/l, a toxaphene value of 31 µg/l, and a trichloroethylene value of 27 µg/l. According to 40 C.F.R. § 132.5(g)(2), the Tribe should have demonstrated that for all other pollutants not listed in tables 1, 2, 3, 4, 5 of Part 132 that those adopted numeric criteria were derived, or are as protective as or more protective than could be derived, using the methodologies in appendices A, B, C, D of Part 132. The Tribe supplied a spreadsheet from the State of MN which detailed the calculations and methods for the human health criteria, however information was lacking for three of the extra criteria which are as follows: 1.9 for pentachlorophenol, 2 for arsenic, 0.016 for endrin.

Response from the Tribe: All extra criteria were calculated by the State of MN using a 60 grams/day fish consumption rate and Part 132 methods. Pentachlorophenol, Arsenic, and Endrin were adopted from Minnesota's Rules, Chapter 7052 - which conforms with Part 132. Regarding the modified criteria, Fond du Lac will submit information to the Region 5 Clearinghouse to address the notification requirement.

EPA Determination: Regarding the missing non-cancer, non-drinking water Part 132 criteria requirements, EPA determined that the Tribe's more protective human health cancer criteria could apply and be implemented in place of the missing criteria, provided the Tribe documented this intent. The documentation has been provided within the Tribe's second responsiveness summary dated 9/28/01.

Concerning the notification requirement when EPA human health criteria have been modified, the Tribe's second responsiveness summary, dated 9/28/01, indicates that the required information was sent to the Region 5 Clearinghouse for assistance with the site-specific notification requirements. Currently, the Region 5 Clearinghouse position is vacant, therefore EPA may share the information with Great Lakes States/Tribes when

the position has been filled.

The concern over the Tribe's extra human health criteria that were adopted from MN standards was addressed when EPA completed the review of MN water quality standards in 2000. EPA determined that the State's human health criteria were scientifically defensible and calculated consistent with Part 132 methods. EPA has thus also determined that Fond du Lac's extra human health criteria are consistent with Part 132 methods.

All remaining Tribal drinking water values are as protective as Part 132 requirements, and applied to the public water supply use as required.

B. § 132.3(c) human health criteria, cancer values (µg/l):

Chemical	GLI - DW	GLI-NDW	Tribal- DW	Tribal-NDW
Benzene	12	310	9.5	125
Chlordane	0.00025	0.00025	28 pg/l (.000028µg/l)	113 pg/l (.000113 µg/l)
Chlorobenzene	-------	-------	230	1,478
Cyanides	-------	-------	587	17,280
DDT	0.00015	0.00015	18 pg/l (.000018µg/l)	71 pg/l (0.000071 µg/l)
Dieldrin	0.0000065	0.0000065	0.81pg/l (.00000081µg)	3.3 pg/l (0.0000033 µg/l)
2,4-Dimethylphenol	-------	-------	336	3,734
2,4-Dinitrophenol	-------	-------	51	1,087
Hexachlorobenzene	0.00045	0.00045	52 pg/l (.000052µg/l)	210 pg/l (0.00021 µg/l)
Hexachloroethane	5.3	6.7	0.75	3.1
Lindane	-------	-------	0.057	0.23
Mercury	-------	-------	0.00077	0.00077
Methylene chloride	47	2,600	45	1,113
*PCBs (class)	0.000026	0.000026	3.2 pg/l (.0000032µg)	13 pg/l (0.000013 µg/l)
2,3,7,8-TCDD (0.000000004 µg/l)	0.0000000086	0.0000000086	0.0010 pg/l (conv. ok)	0.0040 pg/l
Toluene	-------	-------	3,180	23,265
Toxaphene	0.000068	0.000068	7.7 pg/l (.0000077µg)	31 pg/l (0.000031 µg/l)
Trichloroethylene	29	370	19	169

*1997 interim human health PCBs criterion.

Issues within section III B: The Tribe submitted drinking water, and non-drinking water cancer criteria for seven chemicals that were not required by Part 132 (chlorobenzene, cyanides, 2,4-dimethylphenol, 2,4-dimethylphenol, lindane, mercury, and toluene). According to 40 C.F.R. § 132.5(g)(2), the Tribe should have demonstrated that for all other pollutants not listed in tables 1, 2, 3, 4, 5 of Part 132 that those adopted numeric criteria were derived, or are as protective as or more protective than could be derived, using the methodologies in appendices A, B, C, D of Part 132. The Tribe indicated that these extra criteria values were calculated for the Tribe by the State of MN

using a 60 grams/day fish consumption rate and use of Part 132 methods. The Tribe supplied a spreadsheet from the State of MN which detailed the calculations and methods for the human health criteria, however information was lacking for three of the extra drinking water criteria (0.93 µg/l for pentachlorophenol, 2 µg/l for arsenic, 0.0039 µg/l for endrin) and for three of the extra non-drinking water criteria (5.5 µg/l for pentachlorophenol, 53 µg/l for arsenic, 0.016 µg/l for endrin).

The Tribe also modified several of EPA's human health criteria, but did not notify other Great Lakes States/Tribes as specified in 40 C.F.R. Part 132, Appendix F, Procedure 1, 4(B). EPA requested that the Tribe meet the notification requirement by either sending out letters detailing the calculations, or by contacting the Region 5 Clearinghouse Manager to perform the notification duties.

Response from the Tribe: All extra values for Pentachlorophenol, Arsenic, and Endrin were adopted from Minnesota's Rules, Chapter 7052 - which conforms with Part 132.

The PCB value is another criterion that is different than EPA's requirements. The State of MN calculated the PCB value and assured the Tribe that the value is reflective of EPA's latest changes, and uses the methodology and equations from Part 132. The criterion is approximately half those of the State's, reflecting the doubling of the fish consumption rate for the Tribe.

Regarding the modified criteria, the Tribe will submit information to the Region 5 Clearinghouse to address the notification requirement.

EPA Determination: The concern over the Tribe's extra human health criteria that were adopted from MN standards was addressed when EPA finished the review of MN water quality standards in 2000. EPA determined that the State's human health criteria were scientifically defensible and calculated consistent with Part 132 methods. EPA has thus also determined that Fond du Lac's extra human health criteria are consistent with Part 132 methods.

The State of MN calculated the PCB criteria for the Tribe. In the Tribe's original responsiveness summary, dated November 30, 1998, MN indicated that the PCB standard was changed due to a change in EPA's cancer potency factor. The Tribe's human health PCB values are more protective than EPA's interim PCB criterion of 2.6E-5 and are therefore acceptable.

Concerning the notification requirement when EPA human health criteria have been modified, the Tribe's second responsiveness summary, dated 9/28/01, indicates that the required information was sent to the Region 5 Clearinghouse for assistance with the site-specific notification requirements. Currently, the Region 5 Clearinghouse position is vacant, therefore EPA may share the information with Great Lakes States/Tribes when

the position has been filled.

All other required criteria values submitted by the Tribe are as protective as Part 132 requirements.

IV. 40 C.F.R. § 132.3(d): Wildlife numeric criteria - Tribe citation: *Appendix 1.*
A. Section 132.3(d) wildlife criteria (µg/L):

Chemical	Criterion	Tribal Criterion
DDT and metabolites	0.000011	11 pg/l (0.000011 µg/L)
Mercury (includes methyl mercury)	0.0013	0.0013
PCBs (class)	0.00012	122 pg/l (0.000122 µg/L)
2,3,7,8-TCDD	0.0000000031	0.0031 pg/l (0.0000000031 µg/L)

Issues list for Section IV: The Tribe's original 1998 water quality standards submittal included a PCB value of 122 pg/l. The criterion should be 120 pg/l.

Response from the Tribe: The PCB value of 122 was adopted from the MN water quality standards. Fond du Lac will change the wildlife PCB criterion to 120 pg/l.

EPA Determination: The 2001 revised set of standards includes the 120 pg/l criterion. All wildlife criteria are as protective as Part 132 requirements.

V. 40 C.F.R. Part 132 pollutants from table 5 (must be consistent with Part 131) - Tribe citation: *Section 301 and Appendix 3.*

Table 5 Pollutant	Tribal Standards for Table 5 Pollutants (summarized)
Bacteria	*126/ml (monthly), 235/ml (monthly, fewer than 5 samples).
Color	*No nuisance conditions due to color, odor, taste that result from human activities.
Dissolved oxygen	*5 mg/l (daily minimum).
Solids	*No suspended or submerged solids due to human activity....(see complete narrative in section 301 (a).)
pH	*No fluctuation over 1.0 unit in 24 hours
Phosphorus	*Reservation shall be free of nutrients....resulting from human activity.... (see complete narrative in section 301 (d).)
Temperature	*....No increase by more than 3 degrees in Lakes, or 5 degrees in streams...based on monthly average of daily maximum.....No increase for C1 (cold water fisheries) applied at edge of mixing zone.(see complete narrative in section 301 (k).)

Turbidity	*Turbidity attributable to other than natural causes shall not reduce light transmission where aquatic biota are inhibited or color or visibility are altered.....when back ground turbidity is 50 NTU or less, with no more than a 10 percent increase when background turbidity is more than 50 NTU.

Issues within section V: Consistent with § 132.4(g)(1), all pollutants listed in table 5 of Part 132 must have criteria developed, or narratives implemented, using methodologies and procedures acceptable under 40 C.F.R. Part 131. Section 131.11(b) then states that numerical criteria should be based on Clean Water Act § 304(a) guidance, or site-specific modification of § 304(a), or other scientifically defensible methods. Also, any narrative criteria should be based upon biomonitoring methods where numerical criteria cannot be established or to supplement numerical criteria. In the Tribe's original set of standards, the criteria for bacteria, color, dissolved oxygen, solids, pH, temperature and turbidity were different from § 304(a) criteria.

The bacteria criteria were not as protective as the bacteria criteria within the Clean Water Act § 304(a) guidance. The criteria should be 126/100 ml and 235/100 ml. EPA requested revisions to the criteria.

The Tribe's 5.0 mg/L dissolved oxygen (DO) criterion probably came from either an older EPA criteria document (Quality Criteria for Water, USEPA, 1976) which recommended a minimum of 5.0 mg/L, or from MN standards which has a DO concentration of 5.0 mg/L specified for class 2Bd, 2B and 2C waters (protective of cool water and warm water fish, etc). The Tribe's DO criterion is adequate to protect the early life stages of warm water fish. It is also adequate to protect life stages, other than early stages, of both warm water and cold water fish. However, the early life stages of cold water fish are not sufficiently protected by the Tribe's proposed standard. The Tribe has water bodies designated for use as a cold water fishery, however the DO criterion is not consistent with the current Clean Water Act §304(a) criteria recommendations for the early life stages of cold water fish. EPA's recommended daily minimum DO criterion is 8.0 mg/L for cold water early life stages. EPA's criterion recommendation enables a required 5.0 mg/L intergravel DO concentration to be achieved. The early life stages DO criteria are meant to apply only where and when these stages occur. EPA requested that the Tribe revise the DO standard to include protection for the early life stages of cold water fish for those water bodies designated as cold water fishery.

Other Part 132, table 5 pollutants where the Tribe had established criteria different from EPA's § 304(a) recommendations are color, solids, temperature and pH. EPA requested that the Tribe provide additional information for EPA to determine whether these criteria were` protective of designated uses.

At the time of the review of Fond du Lac's standards, EPA did not have a national

criterion for phosphate phosphorus (for the control of eutrophication), therefore the Tribe's narrative criterion involving nutrients, specifically phosphorus, is acceptable.

Lastly, in the original set of standards, the Tribe included an extra numerical criterion to protect wild rice which was identical to the criterion within MN standards. The criterion states that "Any lake or stream which supports wild rice growth shall not exceed sulfate levels of 10 milligrams per liter." 40 C.F.R. § 132.4(h) states that for pollutants, other than those mentioned in table 5 of Part 132, Part 132 methods should be used to develop criteria unless it can be demonstrated that a methodology or procedure is not scientifically defensible. If Part 132 methods are not appropriate for development of the new criterion, then an alternative methodology acceptable under 40 C.F.R. Part 131 must be applied, or an alternative implementation procedure that is consistent with all applicable Federal, State, and Tribal laws must be applied. EPA discussed the wild rice criterion with the Tribe and requested clarification on how the criterion would be implemented.

Fond du Lac submitted their standards to EPA for formal review in 1998 before EPA had finalized the 1999 ammonia criteria. During a 9/27/00 meeting EPA discussed the importance of adding ammonia criteria to the standards.

Response from the Tribe: Appendix 3 was modified to correct the bacteria criteria to 126/100 ml and 235/100 ml, consistent with EPA's 304(a) criteria recommendatons, and to include secondary contact recreational use under these criteria. The dissolved oxygen criterion was changed to 8.0 mg/l to protect the early life stages of cold water fish, applicable only when and where these stages occur. The temperature criterion comes directly from the State of MN standards. The turbidity criterion has been revised to be consistent with EPA's 304(a) recommendations. The pH criterion is virtually identical to that adopted by the Oneida Tribe (1994), and takes into account that naturally occurring pH values in Fond du lac waters (documented through the Tribe's ongoing water quality monitoring program) are often less than the national criterion range of 6.5-8.5; Fond du Lac wishes to protect existing conditions.

Fond du Lac clarified that the sulfate criterion for the protection of wild rice is meant to be an instantaneous maximum, and is seeking National Science Foundation grant funding in cooperation with the University of Minnesota - Duluth (UMD), and UMD's Natural Resource Research Institute to do a comprehensive study of wild rice ecosystem nutrient cycling which will include a sulfate component. For the past three years, Fond du Lac has collected sulfate data on all the designated wild rice lakes as part of its baseline monitoring program.

Regarding the ammonia criteria, Fond du Lac has no agriculture or direct municipal dischargers within the Reservation that could potentially discharge ammonia. However, Fond du Lac agrees to adopt ammonia criteria as one of their first triennial review priorities.

EPA Determination: The Tribe's revised set of water quality standards and the second responsiveness summary indicate that most EPA concerns have been adequately addressed. Where changes have not been made to the standards, the Tribe's responsiveness summary, dated 9/28/01, provided the requested clarifications.

Regarding the nutrient criteria, EPA published several guidance documents in calendar year 2000 supporting the development of State and Tribal nutrient criteria. Following approval of its water quality standards, EPA expects Fond du Lac to prepare a plan for developing nutrient water quality standards for the lakes and reservoirs, and rivers and streams located within the boundaries of the reservation. Absent such a plan, EPA will expect the Tribe to adopt nutrient criteria by 2004.

VI. 40 C.F.R. § 132.4(a)(1): Definitions - Tribe Citation: *Section 201.*
A. All definitions are identical to those in 40 C.F.R. §132.2? *Most are identical.*

B. If "No", the definitions are as protective as (APA) Part 132 for the following reasons:

Term	Cite	APA(Y/N)
Acute toxicity Discussion: *Identical*	*Section 201 (a)*	Y
Bioaccumulation Factor Discussion: *Identical*	*Section 201 (e)*	Y
Bioaccumulative Chemical of Concern Discussion: *Identical*	*Section 201 (f)*	Y
Bioconcentration Factor Discussion: *Identical*	*Section 201 (h)*	Y
Biota-Sediment Accumulation Factor Discussion: *Identical*	*Section 201 (j)*	Y
Carcinogen Discussion: *Identical*	*Section 201 (k)*	Y
Chronic Toxicity Discussion: *Identical*	*Section 201 (m)*	Y
Existing Great Lakes Discharger	*Section 201 (s)*	Y

Discussion: *Identical*

Final Acute Value *Section 201 (u)* Y
Discussion: *Identical*

Genus Mean Acute Value *Section 201 (w)* Y
Discussion: *Identical*

Human Cancer Value *Section 201 (aa)* Y
Discussion: *Not identical, the word "recreation" is left out of one of the phrases "water related recreation activities." By leaving out "recreation" it can be considered more stringent than Part 132 requirements because it protects more then just recreation. The Tribe provided clarification that it was their intent to cover more water-related activities, such as cultural and traditional, rather than just recreational. Fond du Lac agrees that the definition was meant to be more protective.*

Human Noncancer Value *Section 201 (bb)* Y
Discussion: *Not identical. The word "recreation" is left out of the phrases "water related recreation activities." By leaving out "recreation" it can be considered more stringent than Part 132 requirements because it protects more then just recreation. The Tribe clarified that it was their intent to cover more water-related activities, such as cultural and traditional, rather than just recreational. Fond du Lac agrees that the definition was meant to be more stringent.*

Species Mean Acute Value *Section 201 (tt)* Y
Discussion: *Identical.*

Total Maximum Daily Load *Section 201 (uu)* Y
Discussion: *Not identical. Leaves out the phrase ".....as more fully defined at 40 CFR 130.2 (I)." Still okay.*

Toxic unit *Section 201 (xx)*
Requested revision: *The definition of Toxic unit on page 14 should be corrected. The NOAEL should be changed to NOEC. (NOAEL refers to animal and human toxicology and is therefore distinct from the aquatic toxicity term of No Observed Effect Concentration (NOEC).)*

Wasteload Allocation *Section 201 (aaa)* Y
Discussion: *Not identical. Leaves out phrases referring to the CFRs, but acceptable.*

Additional issues within section VI: After the original standards submittal in 1998, EPA requested that the Tribe add a definition for "pollutant" to section 201. Adding the definition would strengthen the section on antidegradation where high quality waters are to be identified by waters where the "quality surpasses, on a **pollutant by pollutant** basis, the standards prescribed under this ordinance." Part 132 defines high quality

waters as "water bodies in which, on a **parameter by parameter** basis, the quality of the waters exceeds levels necessary to support fish, shellfish,...wildlife..... ...recreation..." Also, the Tribe's definition section describes high quality waters as "...waters...which, on a **parameter by parameter** basis, the quality...exceeds levels necessary to support.. fish....etc." EPA suggested the Tribe do one of the following: (a) Be consistent in using either "parameter by parameter" or "pollutant by pollutant;" or (b) if choosing to stick with "pollutant by pollutant" consider adding a definition for pollutant.

EPA requested that the Tribe include a definition for "existing uses." This term is used quite often in the Tribe's antidegradation section 105. A key phrase from Part 132 that would have defined this term is left out of the Tribe's standards. This phrase is as follows: "Existing instream water uses, **as defined pursuant to 40 C.F.R. Part 131, and the level of water quality necessary to protect existing uses** shall be maintained and protected." EPA requested that the Tribe do one of the following: (a) Include the phrase above (in bold) in their antidegradation section at 105(a)(1); or (b) include a definition for "existing uses" within section 201. (This term has generally been defined at 40 C.F.R. § 131.3 as "....those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.")

Response from Tribe for all issues within Section VI: Fond du Lac has corrected the definition of "toxic unit" to include "NOEC," rather than "NOAEL;" and incorporated the EPA's suggested language in Section 105 to read ".....as defined pursuant to 40 C.F.R Part 131, and the level of water quality necessary to protect existing uses." Regarding EPA's suggestion to add a definition for either "pollutant" or "parameter" Fond du Lac has included a definition for "pollutant" and has maintained consistency with that usage throughout the antidegradation section. Fond du Lac's preference for the term "pollutant" arises from the concern that not all measurable "parameters" would necessarily include known hazards to the resource, such as illegal dumping of garbage or carcasses (not uncommon during hunting season).

EPA determination: The Tribe's revised set of standards includes the suggested revisions and all EPA concerns have been adequately addressed.

VII. 40 C.F.R. § 132.4(a)(2): Aquatic life methodology - Tribe citation: *Section 301.*
A. Summary analysis documenting that the aquatic life criteria submitted by the Tribe uses methodology that is as protective as Appendix A of Part 132.

Issues within Section VII: In the original 1998 set of water quality standards, the Tribe did not submit information on methods used to modify, or develop new aquatic life criteria.

Also, 40 C.F.R § 132.5(g)(3) requires States and Tribes to *adopt* methodologies, policies,

and procedures as protective as those discussed at 40 C.F.R § 132.4 (aquatic life methodology in appendix A, bioaccumulation factors in appendix B, human health methodology in appendix C, wildlife methodology in appendix D.) The methodology is required when States or Tribes adopt and revise water quality criteria, or when numeric criteria and values are developed to implement a narrative criterion. Fond du Lac includes a statement within section 301 of the standards that partially addresses this requirement. The Tribe states "for toxic substances lacking a published numeric criteria in these water quality standards, criteria will be derived as necessary using the procedures contained in....40 C.F.R. 132." The Tribe must also *adopt* the methodologies for the adopted and revised aquatic life water quality criteria currently contained within their standards.

Response from the Tribe: Any new or modified aquatic life criteria within the standards were either adopted directly from the State of MN approved water quality standards, or re-calculated for the Tribe by the State using Part 132 methods.

To address the regulatory requirement to *adopt* methodologies directly within the standards, Fond du Lac has adopted and incorporated by reference the required Part 132 methodologies for aquatic life criteria.

EPA determination: Regarding the State of MN methodology used for calculating the Tribe's new or modified aquatic life criteria, EPA has determined that the State of MN methodology is consistent with Part 132. EPA has thus also determined that Fond du Lac's methodology for calculating new and modified aquatic life criteria is also consistent with Part 132 requirements.

The regulatory requirement to *adopt* Part 132 methods has been addressed. However EPA notes a mistake within the Tribe's aquatic life methodology section that links the Tribe's fish consumption rate of 0.060 kg/day to the aquatic life methodology. The fish consumption rate is not the amount of food consumed by fish, it is the amount of fish consumed by humans. The fish consumption rate is used to calculate the human health criteria taking into account human exposure to a pollutant via ingestion of water as well as consumption of fish. EPA will request that the Tribe correct this error during the first triennial review of the Fond du Lac water quality standards by moving the fish consumption rate to the human health methodology section.

VIII. 40 C.F.R. § 132.4(a)(3): Method for development of bioaccumulation factors (BAF)- Tribe citation: *Section 706.*

A. Summary analysis documenting that the overall BAF methodology is as protective as Appendix B of Part 132:

Issues within Section VIII: Section 706 of the standards outlines future modifications of

BAFs on a site-specific basis. This section states that when site-specific modifications of BAFs must be derived, Part 132 methodology will be used. Section 301(e) of the standards also provides protective methodology language for toxic substances currently lacking a published numeric criteria. Based on section 706 and section 301(e), the Part 132 BAF methodology requirement is met for future site-specific modifications of EPA's existing criteria, and for future development of numeric criteria currently lacking a published value. The Tribe's original set of water quality standards did not, however, include information on the BAF methodology used to re-calculate the required Part 132 table 3 human health criteria, nor did they provide methodology information on BAFs used for new human health criteria currently contained within the standards.

Response from the Tribe: The State of MN re-calculated the Part 132 human health criteria for Fond du Lac using modified BAFs. The modified BAFs were also used in the new human health criteria calculations. The modified BAFs were developed by multiplying the baseline BAF by the following lipid fractions which apply to fish in both trophic levels 3 and 4: 0.06 for Class A, B, and C1 waters, and 0.015 for Class C2 waters.

Also, to address the regulatory requirement to *adopt* methodologies directly within the standards, Fond du Lac has adopted and incorporated by reference the required Part 132 methodologies for bioaccumulation factors.

EPA determination: The Tribe's revised set of standards addresses all EPA concerns.

IX. 40 C.F.R § 132.4(a)(4): Human health methodology - Tribe citations: *Section 601 (fish consumption information), Section 301(e) (Part 132 methods), and Section 707.*

A. Summary analysis documenting that the overall human health methodology is as protective as Appendix C of Part 132:

Issues within Section IX: 40 C.F.R § 132.5(g)(3) requires States and Tribes to *adopt* methodologies, policies, and procedures as protective as those discussed at 40 C.F.R § 132.4 (aquatic life methodology in Appendix A, bioaccumulation factors in Appendix B, human health methodology in Appendix C, wildlife methodology in Appendix D.) These methodologies are required when States or Tribes adopt and revise water quality criteria, or when numeric criteria and values are developed to implement a narrative criterion. The original 1998 set of water quality standards did not incorporate these methods. EPA requested that the Tribe adopt the human health methodology from Part 132 directly within their standards.

Fond du Lac also modified several EPA human health criteria, but was unaware of the requirement within 40 C.F.R. Part 132, Appendix F, procedure 1(B), which states that States/Tribes are required to notify other Great Lakes States/Tribes of site-specific

modifications of EPA's human health criteria listed in table 3 of Part 132. The Tribe submitted some relevant information within section 601 of the standards, which briefly mentions a fish consumption rate of 60 grams/day. Also, section 707 indicated the use of Part 132 methods would be used to calculate less-stringent site-specific modifications to human health criteria. EPA discussed the overall notification requirement with the Tribe regarding modified criteria and proposed the following option: The Tribe could comply with the regulatory requirement by submitting the required information directly to the EPA Region 5 Clearinghouse.

Lastly, the original 1998 set of water quality standards did not provide information on methods used to develop new human health criteria contained within the standards. Section 301(e) of the standards indicated that Part 132 methods would be used for toxic substances lacking a published numeric criterion. EPA requests further information on whether these new criteria were calculated using Part 132 methods.

Response from the Tribe: To address the regulatory requirement to *adopt* methodologies directly within the standards, Fond du Lac has adopted and incorporated by reference the required Part 132 methodologies for development of human health criteria.

On August 23, 1999 Fond du Lac provided a memo to EPA documenting the studies that were used as a basis for the fish consumption rates which were used to modify EPA human health criteria. Also, additional information was sent to the EPA Region 5 Clearinghouse to comply with the notification requirement when EPA's human health criteria have been modified.

The State of MN was the source for the new human health criteria contained within the standards. A fish consumption rate of 60 grams/day as well as modified BAFs were used in the calculations. The State assured the Fond du Lac Tribe that all human cancer and noncancer values were calculated according to the methodology in Part 132.

EPA Determination: Fond du Lac has addressed the regulatory requirement to *adopt* Part 132 methods by adopting and incorporating by reference the human health methods from Part 132. EPA notes that the Tribe incorrectly placed the 60 gram/day fish consumption rate within the aquatic life methodology. The Tribe intends to use the 60 gram/day fish consumption rate within the human health criteria calculations, rather than EPA's suggested 15 gram/day fish consumption rate used within Part 132 human health criteria calculations. EPA will request that the Tribe correct this error at the first triennial review.

Concerning the notification requirement when EPA human health criteria have been modified, the Tribe's second responsiveness summary, dated 9/28/01, indicates that the required information was sent to the Region 5 Clearinghouse for assistance with the site-specific notification requirements. Currently, the Region 5 Clearinghouse position is

vacant, therefore EPA may share the information with Great Lakes States/Tribes when the position has been filled.

Regarding the State of MN methodology used for calculating the Tribe's new and modified human health criteria, EPA has determined that the State of MN methodology is consistent with Part 132. EPA has thus also determined that Fond du Lac's methodology for calculating the new and modified human health criteria is also consistent with Part 132 requirements.

X. 40 C.F.R. § 132.4(a)(5): Wildlife methodology - Tribe citation: *Section 301(e), Section 704.*
A. Summary analysis documenting that the wildlife methodology is as protective as Appendix D of Part 132:

Issues within Section X: Part 132 methods must be adopted and used for calculating human health and aquatic life criteria for all pollutants, with the exception of the Part 132 table 5 pollutants. Part 132 wildlife methodology is required only for bioaccumulative chemicals of concern (BCCs). The methodology requirement for the wildlife numeric criteria currently contained within the Tribe's standards is met because the Tribe's criteria came directly from Part 132 without modifications. For toxic substances currently lacking a published numeric criteria, the Tribe has met the wildlife methodology requirement by including a protective statement in section 301 (e). For any other wildlife criteria issues (e.g. the need to develop a numeric wildlife criterion to implement a narrative criterion) the Tribe should incorporate the wildlife criteria methodology directly into the standards.

Response from the Tribe: Fond du Lac has adopted and incorporated the Part 132 wildlife methodology directly within Section 301 of the revised set of water quality standards.

EPA determination: The Tribe has addressed all concerns by revising the standards to include the Part 132 wildlife methodology.

XI. 40 C.F.R. Part 132, Appendix E, antidegradation: Tribe citation: *Section 105(a).*

A. Antidegradation policy/implementation procedures identical to those found in Appendix E? *No.*

If "No," are the components of the policy and procedure proposed by the Tribe as protective as the following components of 40 CFR 132, Appendix E:

1. Antidegradation Standard

a. Applicability:

BCCs only?_____all pollutants?__X____ Cite: *Section 105(b)(1), and (b)(4)*.

Issue to resolve: The Part 132 antidegradation standard requires that, at a minimum, States and Tribes adopt antidegradation provisions as protective as Appendix E to Part 132 and applicable to pollutants identified as BCCs. Originally, the Tribe did not specify whether just BCCs or "all pollutants" are covered. The Implementation section 105(b)(1) refers to "all pollutants." However, the Implementation section under High Quality Waters 105(b)(4) just refers to BCCs. EPA believes the Tribe intends to apply antidegradation to all pollutants, not just BCCs, because in the original responsiveness summary the Tribe indicates they changed a definition for expanded discharges so that antidegradation could be applied to non-BCCs. EPA requested that the Tribe include a clear statement within the antidegradation policy section on whether the policy applies to only BCCs, or to both BCCs and non-BCCs.

Response from the Tribe: Fond du Lac has added the recommended clarification language to section 105(b)(4) within the revised set of standards.

b. Tier I, protection of existing/designated uses?

Yes__X__ No____ Cite: *Section 105(a)(1)*

Issues to resolve: Within Section 105(a)(3), the Tribe requires "best management practices" for non-point sources. Appendix E to Part 132 requires "cost effective and reasonable" best management practices. This can be interpreted to be more protective stringent than the Part 132 requirements. EPA requested clarification during a conference call to document the Tribe's intent.

The term "existing uses" is used often in the Tribe's antidegradation section 105, however this term is not defined in the Tribe's water quality standards. The lack of this definition could hamper the Tribe's ability to implement its antidegradation policy. The Tribe should consider including a definition of this term the next time the water quality standards are reviewed. The Tribe could address this by incorporating the language from 40 C.F.R. Part 132 , appendix E that reads: "Existing instream water uses, **as defined pursuant to 40 C.F.R. Part 131, and the level of water quality necessary to protect existing uses** shall be maintained and protected." Alternatively, the Tribe could also include a definition for "existing uses" within section 201. (This term has generally been defined at 40 C.F.R. § 131.3 as "....those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.")

Response from the Tribe: Fond du Lac has included the phrase "cost effective

and reasonable" best management practices, as well as the phrase which defines "existing uses."

c. Tier II, protection of high quality waters:

- high quality waters identified on a parameter-by-parameter basis?
  Yes__X___ No_____ Cite: *Section 105(a)(2)*

  Issues to resolve: The Tribe's standards identify high quality waters on a "pollutant by pollutant basis," rather than "parameter by parameter basis." This is acceptable as long as the Tribe includes a definition for pollutant. EPA originally requested this definition during the Tribe's first public meeting, however in the Tribe's first responsiveness summary, they indicated that the ".....staff opted not to include definitions of 'pollutant,'....."

  Response from the Tribe: Fond du Lac included a definition for pollutant within the revised set of standards.

- water quality protected unless a lowering is necessary to accommodate important social and economic development in the area in which the water body is located?
  Yes__X___ No_____ Cite: *Section 105(a)(4)*

d. Tier III, Outstanding National Resource Water (or some similar designation)

- no permanent lowering of water quality?
  Yes___X__ No_____ Cite: *Section 105(a)(5)*

e. Thermal degradation

- consistent with CWA section 316?
  Yes_X____ No_____ Cite: *Section 105(a)(6)*

2. Implementation

a. Definition of significant lowering of water quality (BCCs)

- antidegradation review triggered by any activity/action that will result in an increased loading of BCCs?
  Yes__X___ No_____ Cite: *Section 105(b)(1)*

b. Tier I Implementation (existing uses)

- water quality may not be lowered if uses are not attained (criteria are not met)?
  Yes__X___ No_____ Cite: *Section 105(b)(2)*

c. Tier III Implementation (ONRWs)

- no permanent lowering of water quality?
  Yes__X___ No_____ Cite: *Section 105(b)(3)*

d. High Quality Waters

- significant lowering of water quality may not occur without completing an antidegradation review to the satisfaction of the State/Tribe?
  Yes__X__ No_____ Cite: *Section 105(b)(4)*

  Issues to resolve: In section 105(b)(4), the second paragraph refers to "regulated activity" rather than "regulated facility" as stated in the federal regulations.

  Response from the Tribe: "Regulated activity" is the correct phrase. Fond du Lac has no regulated facilities currently on the reservation, but there are activities taking place which have the potential to degrade water quality. Also, Fond du Lac included the phrase "or other pollutant" after the term BCC.

- monitoring required for BCCs known or believed to be present in the discharge?
  Yes__X___ No_____ Cite: *Section 105(b)(4)*

e. Exemptions from antidegradation review

- short-term or temporary lowering of water quality?
  Yes__X___ No_____ Cite: *Section 105(b)(3)*

- bypasses not prohibited under 40 CFR 122.41(m)?
  Yes_____ No__X___ Cite:
  rationale: *By leaving this out as an exemption, it can be considered more protective.*

- response actions pursuant to CERCLA undertaken to alleviate an imminent and substantial danger to public health/welfare?
  Yes_____ No_X____ Cite:
  rationale: *By leaving this out as an exemption, it can be considered more protective.*

3. Antidegradation Demonstration Components

a. consideration of pollution prevention alternatives?
Yes__X___ No_____ Cite: *Section 105(c)(1)*

b. consideration of alternative/enhanced treatment?
Yes__X___ No_____ Cite: *Section 105(c)(2)*

c. identification of social/economic development benefits resulting from lowering of water quality in the affected area?
Yes___X__ No_____ Cite: *Section 105(c)(3)*

d. special provisions for remedial actions?
Yes_____ No__X___ Cite:
rationale: *This does not apply since the Tribe included requirements for Pollution Prevention Alternatives, and Alternative or Enhanced Treatment Analyses.*

4. Decision
- based on information obtained from the permittee though the demonstration and subject to public participation?
Yes__X___ No_____ Cite: *Section 105(d)*

EPA determination: Though not identical to the regulations, the Tribe's original standards submittal included an antidegradation policy and procedures that were generally consistent with 40 C.F.R. Part 132. Most of the items required by EPA regulations, but left out by the Tribe, served to make the policy and procedures more protective than Part 132 requirements. The clarifications and revisions requested above have all been addressed by the Tribe within the revised set of standards.

XII. 40 C.F.R § 132.4(a)(7) Implementation procedures

A. Procedure 1: Site-specific modifications to criteria and values - Tribe citations: *Section 701, 702, 703, 704, 705, 706, 707.*

1. The site-specific procedure is identical to that found in Procedure 1, Appendix F?
_____Yes____X___No If no, see summary below for any requested revisions or clarifications.

EPA determination: Though not identical to Part 132 requirements, Chapter 7 of the Tribe's standards meets the requirements of Part 132. The following paragraphs provide clarifications and discuss areas where the Tribe's standards deviate from EPA regulations:

Section 701 generally describes site-specific modifications when (1) a discharger requests a site-specific modification to a standard, (2) the Tribe determines that a site-specific modification is necessary to protect endangered or threatened species, or a site-specific modification is necessary to protect highly exposed subpopulations. The Tribe requires a site-specific study in accordance with the methods outlined in Chapter 3 of the U.S. EPA Water Quality Standards Handbook. After the Tribe approves the study and develops a site-specific criterion, it will be submitted to EPA for approval. These requirements are consistent with 40 C.F.R. Part 132, Appendix F, Procedure 1.

Section 702 generally outlines protection of endangered and threatened species when the Tribe modifies a standard or develops a site-specific criterion. This section is consistent

with requirements at Procedure 1, (A).

Section 703 outlines requirements for calculating site-specific aquatic life criteria. This section is consistent with Procedure 1, (A)(1) (a-c), however this section leaves out the requirements for threatened and endangered aquatic species specified at Procedure 1, (A)(1)(d). The Tribe addresses this particular requirement in a separate section (705) entitled "Site-specific Modifications to Protect Threatened or Endangered Species."

Section 704 discusses site-specific modification of wildlife standards. The information is consistent with Procedure 1 (A)(2)(a-b), however there is no reference to the use of Part 132 wildlife methods for endangered or threatened wildlife species specified at Procedure 1 (A)(2)(c) . The Tribe addresses this particular requirement in a separate section (705) entitled "Site-specific Modifications to Protect Threatened or Endangered Species."

Section 705 discusses site-specific modifications to protect threatened or endangered, aquatic life or wildlife species. This section addresses the missing requirements from section 703 and 704. It is fully consistent with the requirements at Procedure 1, (A)(1)(d), and Procedure 1 (A)(2)(c).

Section 706 discusses site-specific modification of BAFs. This section is consistent with the requirements at Procedure 1 (A)(3).

B. Procedure 2: Variances - Tribe citations: *Sections 804, 805, 806, 807, 808, 809, 810.*

1. The variance procedure is identical to that found in Procedure 2, Appendix F?
   Yes ____ No X

Issue to resolve: Part 132 requests that a final decision on variances be given within 90 days of the public comment period. As originally submitted, the Tribe does not give a timeline for making a final decision on a variance. The Tribe should add a timeline for making a final decision.

Response from the Tribe: Fond du Lac added a timeline of 90 days after the public comment period for making a final decision on a variance.

EPA determination: The variance procedure in the revised set of standards is consistent with Part 132.

C. Procedure 3 and 4: Mixing Zones - Tribe citations: *Section 801, 802, 803.*

EPA Determination: Section 801 is consistent with the requirements at Appendix F,

Procedure 3 (D)(1) and (4), and Procedure 3 (E)(4-5).

Section 802 is consistent with the demonstration requirements at Procedure 3 (F).

Section 803 is consistent with the mixing zone requirements for BCCs specified at Appendix F, Procedure 3 (C).

XIII. 40 C.F. R. § 131.10 Designated uses: - Tribe citation: *Section 302.*

A. Designated uses required by the Clean Water Act (CWA) § 101(a)(2).

CWA Required Uses	**Tribe's Uses**
1. Protection and propagation of fish, shellfish, wildlife.	Cold water fisheries, warm water fisheries, subsistence fishing, wildlife.
2. Recreation in and on the water (fishable/swimmable)	Primary contact recreation, secondary contact recreation.

EPA Determination: The Tribe includes uses that are consistent with CWA § 101(a)(2) goals.

B. Uses to be considered under CWA § 303(c).

CWA Uses to be considered	**Tribe's Uses**
1. Public water supplies	Public water supply
2. Propagation of fish and wildlife	Cold water fisheries, warm water fisheries, subsistence fishing, wildlife.
3. Recreation	Primary contact recreation, secondary contact recreation.
4. Agriculture	Agriculture
5. Industrial purposes	Commercial
6. Navigation	Navigation

Issues within section XIII B: The Tribe lists and describes designated uses within the

standards that are consistent with CWA § 101(a)(2) and 303(c) goals. However, in the Tribe's original standards submittal a list of Reservation water bodies with designated uses assigned to each water body showed that two lakes were not designated as "swimmable" (primary contact recreation). Also, the Tribe included a default set of uses for water bodies not currently listed within the standards, and the default uses did not include primary contact recreation, only secondary contact. According to the CWA, all water bodies must provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, and wildlife, and ***recreation in*** and on the water (i.e. fishable/swimmable).

In the original standards submittal "subsistence fishing" or C3 is one of the designated uses listed on page 19. The phrase ".....portion of the Reservation necessary to provide a sufficient diet of fish in order to sustain a healthy, current, on-Reservation population...." was confusing as to whether protecting the fish population or protecting human health was the focus. EPA requested clarification from the Tribe in order to determine whether the appropriate numeric criteria (i.e., human health or aquatic life) were applied to protect the use. Fond du Lac indicated that protection of the fish population was their intent. EPA's subsequent review indicated that the C3 use was not adequately protected with aquatic life criteria for some of the Tribe's waters. 40 C.F.R. Part 132 requires that the aquatic life criteria apply to all water bodies. The Tribe correctly applies an aquatic life use to each of their water bodies, however the appendices linking the appropriate numeric criteria to the designated uses do not provide adequate protection. Some water bodies are only designated for C2 (warm water fisheries) and C3 (subsistence fishing) uses. When viewing the applicable numeric criteria in appendix 1, references to equations in appendix 2 are provided. When viewing the required aquatic life equations in appendix 2, most are only applied to the C1 (cold water fisheries) use, and not to the C2 or C3 uses. Since the C1 use is not applied to all Reservation water bodies, this leaves some of the Reservation waters without the required aquatic life protection. Fond du Lac must ensure that all required aquatic life criteria from Part 132 are applied to all Reservation waters.

Page 25 in the Tribe's standards states that ".....the standards contained in 40 C.F.R. Part 141, subparts B&G and Part 143 shall be applicable to the surface waters of the Reservation." These drinking water standards can be used as surface water quality criteria by generally applying them to waters designated as public water supply or a tribal ceremonial use involving ingestion of water. EPA notes that none of the drinking water criteria from Parts 141 or 143 are listed in the Tribe's appendix 1 tables in the column entitled "applicable standards" - even though some of the drinking water standards are more stringent than what is listed as the Tribe's applicable standard. EPA requested the Tribe provide clarification on where Parts 141 and 143 standards apply.

Response from the Tribe: Rather than conduct a use attainability analysis for First and Second Lakes, those two water bodies were redesignated for primary contact recreation,

maintaining consistency with the CWA § 101(a)(2) and 303(c) goals.

Appendix 2 was amended to include the C2 and C3 designated uses, ensuring that all required aquatic life criteria are applied to all Reservation waters.

Fond du Lac provides clarification that there are no Reservation waters specifically designated for use as a public water supply at this time, but that the Safe Drinking Water Act criteria may be applied in the future to waters designated as a public water supply.

The Tribe includes a "Commercial" use rather than "Industrial" use. The "Industrial" use generally includes industrial cooling and process water supplies. This use classification is intended to protect industrial equipment from damage from cooling and/or process waters. The Tribe's "Commercial" use requires water quality adequate for use as commercial water supply for business processes. Therefore, the Tribe's "Commercial" use appears to be consistent with the CWA's "Industrial" use.

EPA Determination: Fond du Lac has addressed all issues identified by EPA in the revised set of standards, or has provided requested clarifications within the second responsiveness summary.

XIV. Miscellaneous Comments

A. Required Changes

1. The list of water bodies in Chapter 4 of the standards and in the 1996 approved program authorization application should be consistent with each other.

Response from the Tribe: The list of water bodies in Chapter 4 of the standards has been modified to reflect the corrections and clarifications documented in the August 10, 2000 memo from EPA.

2. Pursuant to 40 C.F.R.§ 132.5(b)(2), the ordinance must be certified as having been duly promulgated by the "Attorney General or other appropriate legal authority." This means that the certification should come from the Tribal Attorney.

Response from Tribe: The amended water quality standards document has been submitted with certifications (in Chapter 10) from the Tribal Chairman, Secretary/Treasurer, and the Tribal Attorney, ensuring that the standards and revisions have been duly adopted pursuant to tribal law. The accompanying certification letter has the signature of the Secretary/Treasurer, per tribal procedure.

3. Page 25, second paragraph says: "Some pollutants do not have an MS or an FAV because of insufficient data. **For these pollutants, the CS is the numeric standard.**" The phrase (in bold) should be changed to something similar to the following: "For these pollutants, a value will be calculated using Part 132 methods."

Response from the Tribe: Fond du Lac has changed the phrase to "For these pollutants, tier II numeric criteria will be calculated according to GLI methodology."

EPA Determination: All required changes have been addressed.

B. Recommended Changes

1. The ordinance reflects that the Tribe does not now have permitting authority under the CWA. Hence, when there is reference to permitting activity, the Ordinance for the most refers to "the Reservation Business Committee or appropriate permitting authority." Section 105.a.3; 105.b.3; 105.b.4 (last sentence) are sections of the standards where the above underlined language was not included, and EPA recommends that these sections be revised to include the phrase.

Response from the Tribe: Fond du Lac included the language "or appropriate permitting authority" where it is missing.

2. Section 103 of the standards includes the phrase: "The water quality standards.....shall apply to all activities which may impact the quality of the waters, including wetlands, upon, under, flowing through or adjacent to the ....Reservation....." To clarify the scope and coverage of the water quality standards, EPA suggested the following alternative wording: "The standards shall apply to all waters of the Fond du Lac Reservation, including wetlands. The standards will be applied to activities on the Reservation which may impact the quality of waters upon, under, flowing through, or adjacent to the Reservation."

Response from the Tribe: Fond du Lac changed the language in Section 103 according to EPA's suggestion.

EPA Determination: The revised language addresses EPA's concerns. The EPA approval letter makes it clear that the Tribe's water quality standards apply only within the borders of the Fond du Lac Reservation; and that EPA's criteria were not designed to protect ground water and 303 Program Authorization does not convey authority to run a ground water protection program.

C. Other Matters to Note:

1. EPA noted that Section 804 of the Tribe's standards provided that variance procedures not apply to new dischargers. Appendix F of 40 C.F.R. Part 132 excludes both new dischargers and "recommencing" dischargers. EPA assumed this language was included within the Tribe's standards because there are no present permit-holding dischargers within the Reservation. EPA requested confirmation from the Tribe. If the assumption is not correct EPA recommends revisions consistent with the regulatory language.

Response from the Tribe: Fond du Lac confirms there are no present permitted dischargers within the reservation boundaries.

EPA Determination: All concerns have been addressed.